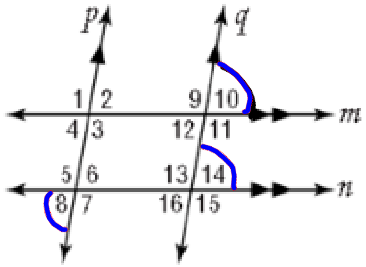
11/05/13 Agenda:

- Review Worksheet 5 - Review Worksheet

- Quiz on 4.1, 4.2, & 4.7

- Intro to proofs

23.) Line p is parallel to line q and line m is parallel to n. Explain how $\angle 8 \cong \angle 10$. Please write your answer in complete sentences. **(4 pts.)**



STATEMENT	REASON
1. $P \parallel Q$	1. GIVEN
2. $M \parallel N$	2. GIVEN
3. $\angle 10 \cong \angle 14$	3. CORRESPONDING $\angle$s
4. $\angle 14 \cong \angle 8$	4. ALT. EXT. $\angle$s
5. $\angle 10 \cong \angle 8$	5. TRANSITIVE PROP

Reasons for proofs.

1) Given- information was given

2) **Vertical $\angle$'s are $\cong$** - use if you have vertical angles

3) **Reflexive**- use if you have something congruent to itself

4) **Alternate interior angles (AIA)**- use if you have parallel lines and the angles are AIA.

5) **Corresponding Angles (CA)**- use if you have parallel lines and the angles are CA.

6) **Alternate exterior angles (AEA)**- use if you have parallel lines and the angles are AEA.

7) **Definition of a midpoint**- a midpoint divides a segment into two congruent segments.

8) **Definition of angle bisector**- cuts an angle into 2 congruent angles

9) **definition of perpendicular**- forms right angles

10) **right angles are congruent**- use AFTER you have said you have right angles in the proof.

11) **Definiton of perpendicular bisector**- forms right angles AND bisects the angle.